United States Department of the Interior

SM-810001
3800
(U-201)

BUREAU OF LAND MANAGEMENT
Salt Lake District Office
2370 South 2300 West
Salt Lake City, Utah 84119

JUL 17 1981

Mr. Lavar Engle
Western International Corporation
1399 South 700 East, Suite 16
Salt Lake City, Utah 84105

JUL 22 1981
LCS

These Stipulations made part of mine plan July 22, 1981
Lee

Dear Mr. Engle:

Our Office has completed an intensive review of all data provided and an Environmental Assessment of the proposed action near Park City. We feel with additional stipulations, as outlined below, that your plan will prevent unnecessary or undue degradation and provide for reasonable reclamation of the area to be mined. In accordance with 43 CFR 3809. 1-6 (a)(1) we hereby approve your plan of operation.

ADDITIONAL STIPULATIONS

I. Create a new stream channel during reclamation following these stipulations:

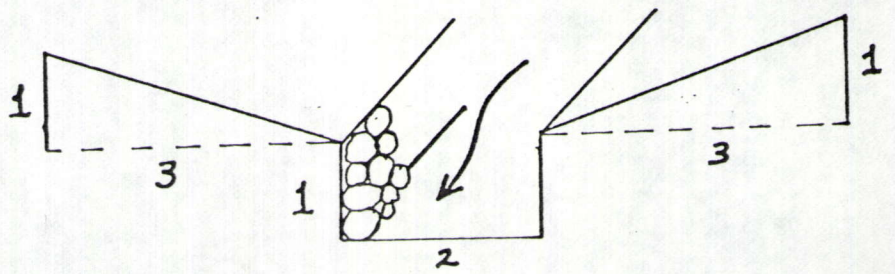
A. Nearly the same linear length of stream should be present in the re-routed channel as in the original stream watercourse. A length of approximately 2200' ± 25' should be achieved.

B. The new stream gradient or percent drop, will be the same as the original; in this case 2%.

C. The pathway of the new channel shall follow a meander pattern, instead of a straight watercourse. The new channel will be staked prior to construction and inspected by the BLM representative.

D. Rip-rap shall be utilized only where necessary to protect erosion of existing structures, such as railroad tracks or the irrigation ditch, and shall not exceed 15-20% of the total length of the reclaimed stream channel.

E. Channel shape and construction shall be according to the following diagram:



1. Stream channel width shall be kept nearly the same as the existing channel (approximately 2' in width).

2. The channel shall be partially pre-formed by cutting a bank approximately one foot in height nearly vertical from the stream channel floor. This bank shall be lined with rocks of a size ranging between 0.5'-0.7' in diameter.

3. The earthen bank slopes shall be on a 3/1 scale consistent with UDWR highway construction recommendations. Design stipulations are also to handle high water run-off conditions. Banks may also need to be covered with topsoil to establish vegetation.

F. Stream banks shall be revegetated with native riparian vegetation. Examples of such species include: willow, red alder, aspen, wild rose, squawbush, poplar, and sedges (Juncus sp.). Bank stabilization will be most successful with tree and shrub species. Native riparian grasses will recolonize the area after cessation of disturbance. Species selection will be prior to the conclusion of the first mining season as specified in VII. (below).

G. Instream boulders with a diameter of 1.0'-1.5' feet shall be placed at irregular intervals to produce pool and backwater areas. Within the 2200' channel 25-30 boulders should be placed (Attachment 1).

II. The area of mining operations shall be fenced with a chain link or board fence for security and safety reasons. The fence must be at least 6' high and must be kept in good repair.

III. Apply water to source areas of dust to eliminate any air pollution. This will probably require an above ground sprinkling system for mining areas and a water truck for roads.

IV. Diversion channel and any culverts for the rechannelization of Silver Creek shall be large enough to handle a 50 year storm and/or a 50 year high snowpack runoff, i.e., a cross sectional stream channel of sufficient sq. ft., or a steel or concrete culvert able to handle 580 cfs. (580 cfs. is the predicted 50 year runoff as computed by the City Engineer).

V. Before eliminating vegetation within the action site, the water should be turned into the temporary stream channel. Work could then start on the mineral extraction. This approach would greatly reduce downstream siltation. Inherent in this action is construction of the new channel in a manner proceeding downstream to upstream. The last connection should be at the upstream point of rerouting.

VI. A buffer will be constructed on the west end of the mining site. It may be a high solid wooden fence and/or windrow of Russian olive and/or aspen using balled root stock (3 to 5 years old).

VII. Revegetate disturbed and recontoured area at the conclusion of each mining season (October). Mulch and fertilize or cover the area with topsoil and plant/seed with selected varieties of forbs, grasses, and browse. A recommended seed mixture will be developed prior to the close of the first season of operation after some of the reprocessed reject has been hauled back.

VIII. Clearing the vegetation should be completed as work progresses far enough in advance to assure an efficient operation, but leaving established vegetation cover as long as possible.

IX. The claimants shall fulfill or satisfy all applicable provisions of all Federal, State and local laws, codes, and regulations covering mining operations and small business.

X. The claimants shall provide evidence prior to beginning operations that they have secured water and diversion rights which are adequate to conduct the mining operation.

XI. The claimants shall provide evidence of an existing bond prior to beginning operations which meets the requirements of the Utah Division of Oil, Gas and Mining and exceeds $80,000.00. The bond may be filed with the Utah Division of Oil, Gas and Mining, providing that the Division agrees to obtain the concurrence of the BLM prior to releasing the claimant from obligation under the bond. If not, a bond must also be filed with BLM.

XII. The BLM representative for surface disturbance/reclamation is Dan Washington (801) 524-5348. He should be notified prior to the start and the close of each year's mining activity.

XIII. Proposed changes in the plan of operations and amendments to the plan which have been submitted to the BLM, must be provided in writing and approved in writing prior to their implementation. This will include changes in the method or schedule of mining, milling, water diversion and use, reclamation, or other factors of significance to the operation.

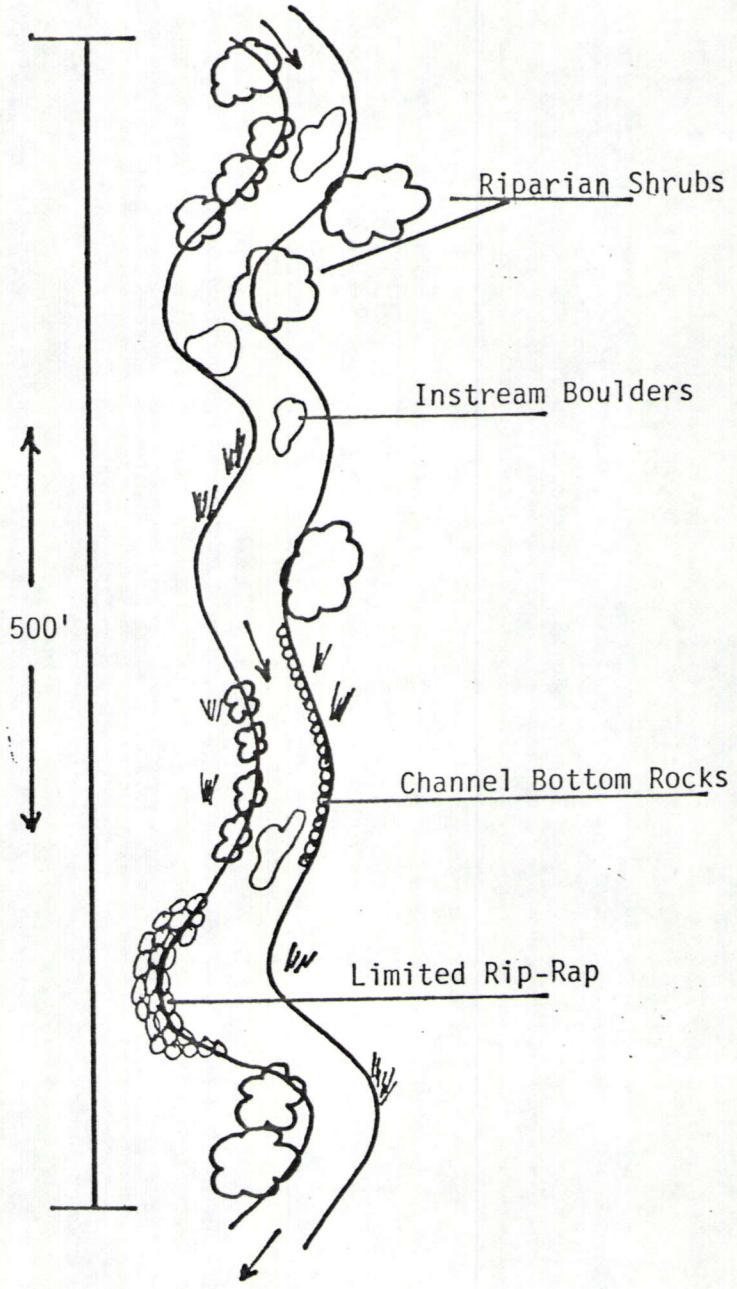
Thank you for your cooperation.

Sincerely yours,

Jack C. Peterson

Jack C. Peterson
Bear River Resource Area

IDEALIZED STREAM MEANDER PAT. .N



Top view of Re-routed Silver Creek - features depicted include; riparian plantings, instream boulder placement, meander water-course, channel wall rock placement, rip-rap placement.